RESEARCH HIGHLIGHT

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Impact of Economic Cycles on the Incidence of Core Housing Need in Canada

INTRODUCTION

Core housing need[1] is often described as an essentially structural problem for which innovative and sustainable solutions must be found. However, given that this need generally stems from an imbalance between supply and demand of acceptable housing[2], its evolution greatly depends on temporary fluctuations in the key factors (for example, employment, disposable income and construction costs) underlying the real estate market, which is one of the most cyclical sectors of the economy. Currently, there is almost no research available on the impact of economic cycles on the nature and scope of core housing need. This study had two main objectives: i) help decision makers better understand the cyclical nature of core housing need in Canada, and ii) examine policies to address this need in relation to economic cycles.

This *Research Highlight* presents the main results of this study.

METHODOLOGY AND DATA SOURCES

Input data for the Canadian core housing need model come mainly from the Census of Population conducted every five years by Statistics Canada. There is consequently insufficient national aggregate data to establish a reliable statistical link between core housing need and the economic cycles. As a result, the chosen research strategy focused on the analysis of semi-aggregate panel data for Canada's 27 census metropolitan areas (CMAs) covering three time horizons (1991, 1996 and 2001). The 2006 Census was not considered as the processing of data collected that year had not yet been completed at the time of the study.

Other data sources were also used, such as certain CMHC publications (*Canadian Housing Observer*, *Research Highlight* series, Housing in Canada Online [HiCO]) and the Survey of Labour and Income Dynamics (SLID) conducted annually by Statistics Canada but from a much smaller sample than for the Census.

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[1] A household is said to be in **core housing need** if its principal residence falls below at least one of the adequacy, suitability, or affordability standards and its income does not allow it to access acceptable housing[2].

[2] Housing is **acceptable** if it is **adequate** (reported by its residents as not requiring any major repairs), suitable (has enough rooms for the size and make-up of the resident household, according to National Occupancy Standard (NOS) requirements) and **affordable** (costs less than 30 per cent of before-tax household income).

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KEY STUDY RESULTS

The major findings of the study are as follows:

The economic cycle is the main determining factor in the real estate cycle

- Of all the variables that underlie the cyclical nature of the real estate market, real economic variables were the most significant (see Figure 1). It seems that temporary fluctuations in aggregate output and employment significantly affect household buying power and, as a result, housing demand. In periods of expansion, households consume more housing services thanks to their greater buying power. Inflation also plays a non-negligible role. An increase in housing demand supported by economic growth leads to a tightening of the housing market, which results in a decrease in the vacancy rate. Consequently, home rents and prices rise, which brings about an increase in supply on account of the higher profitability. Then, the rise in home prices and rents gradually slows housing demand.
- As the housing sector is very sensitive to credit market conditions, the economic cycle also affects the real estate cycle through monetary and financial variables. In fact, in periods of expansion, demand for credit (particularly mortgage credit) increases, which puts upward pressure on real interest rates and tends to crowd out any increase in real estate activity. But, in periods of recession or economic slowdown, the pressure of credit demand on real interest rates eases, and therefore reduces the usage cost of a residential investment.
- The economic cycle also affects the real estate cycle through demographic changes, such as changes in lifestyle (doubling up, undoubling) and variations in migration flows that impact the household formation rate and, therefore, housing markets.

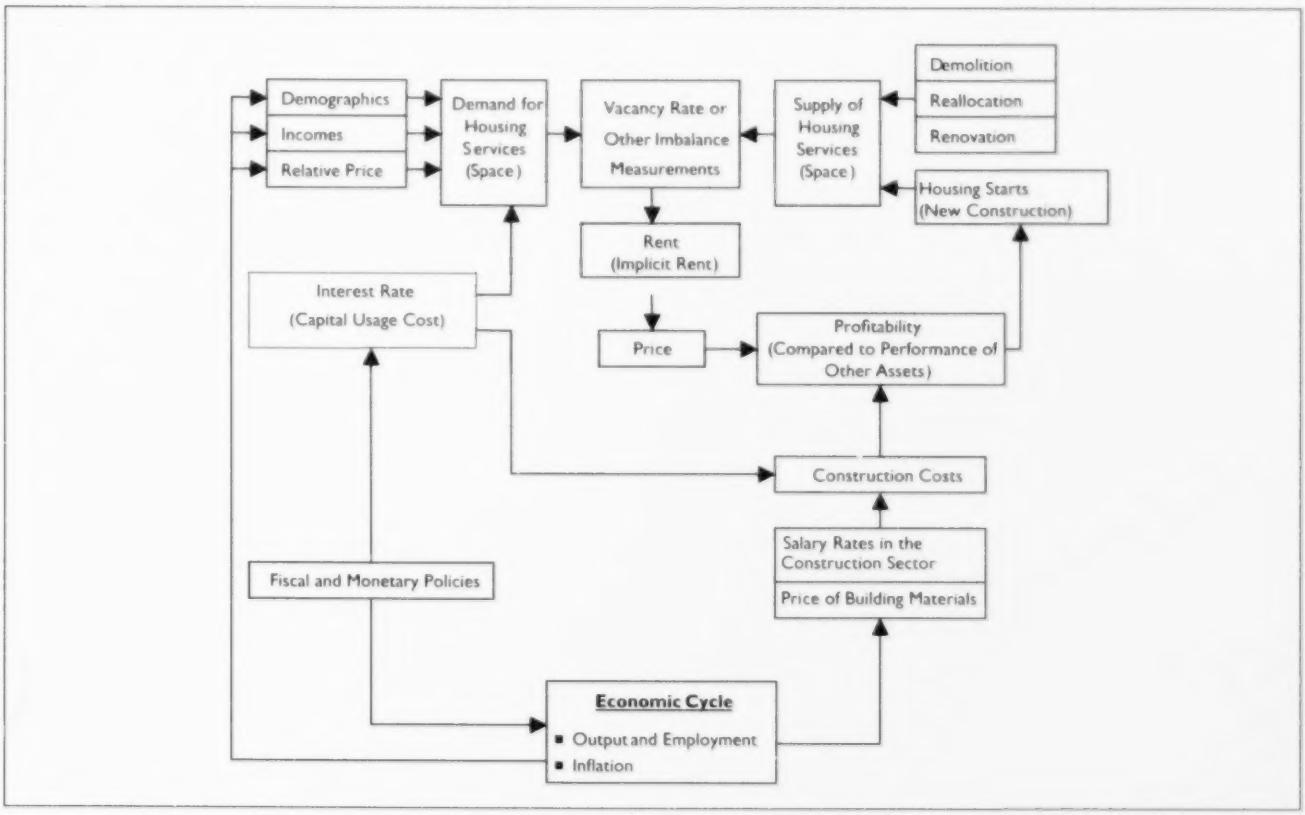

Figure 1 The Real Estate Cycle

Core housing need is very sensitive to variations in the unemployment rate, which have a particularly marked effect on affordability.

With an estimate established using an econometric model based on empirical data, it was possible to measure the impact of the economic cycle, as represented by the unemployment rate, on the incidence of core housing need, as well as on compliance with the three housing acceptability standards (adequacy, suitability and affordability) and on the financial capacity of households. The estimate showed that an increase of one percentage point in the unemployment rate resulted in a rise of 0.57 of a percentage point in the proportion of households in core housing need (see Table 1). This cyclical sensitivity is due to the significant impact of such an increase in the unemployment rate on housing affordability: the percentage of households living below the affordability standard grows by 0.41 of a percentage point when the unemployment rate rises by one percentage point, while the proportion of households not living in an acceptable dwelling but who have the financial capacity to do so falls by 0.17 of a percentage point.

Table 1 Impact of an increase of one percentage point in the unemployment rate on the incidence of core housing need, on non-compliance with the housing acceptability standards and on the financial capacity of households

Variables	Impact of Unemployment Rate Increase (in percentage points)
Total proportion of households in **core housing need**	+0.57
Impact according to the acceptability standard examined	
Proportion of households in dwellings below the **adequacy standard** (households in core housing need)	+0.023
Proportion of households in dwellings below the **suitability standard** (households in core housing need)	+0.087
Proportion of households in dwellings below the **affordability standard** (households in core housing need)	+0.41
Proportion of households **not living in an acceptable dwelling but who have the financial capacity** to do so (households not in core housing need)	-0.17

Among the standards that determine core housing need, affordability is the most sensitive to variations in economic conditions.

According to the data shown in Table 2, the increase in the unemployment rate appears to have a greater impact on affordability than on the other standards used to determine core housing need. The fact that the increase in the unemployment rate resulted in a rise in the incidence of core housing need was due, in a proportion of 55 per cent, to a rise in the number of households living in an unaffordable dwelling (non-compliance with the affordability standard); the decrease in the financial capacity of households accounted for 30 per cent of the rise in the incidence of core housing need, while non-compliance with the suitability and adequacy standards respectively accounted for 12 per cent and 3 per cent of this rise.

Table 2 Breakdown of the impact of an increase of one percentage point in the unemployment rate on the incidence of core housing need and on non-compliance with the standards that determine this need

Variables	Impact (%)	
Total impact on the incidence of core housing need	0.57	(100)
Impact on the incidence of non-compliance with the adequacy standard	0.018	(3)
Impact on the incidence of non-compliance with the suitability standard	0.067	(12)
Impact on the incidence of non-compliance with the affordability standard	0.32	(55)
Impact of insufficient financial capacity in accessing acceptable housing	0.17	(30)

The contribution of the affordability standard to the incidence of core housing need was due, on the one hand, to the positive correlation between the unemployment rate dynamics (and consequently household income) and the economic cycle and, on the other hand, to the time lag between the change in economic conditions (that is, the increase in the unemployment rate) and the effect of this change on housing costs and the proportion of households living in a suitable and adequate dwelling.

CONCLUSION

This study showed that economic cycles have notable impacts on the nature and scope of core housing need. It emerged that temporary fluctuations in household income were more important than those in housing costs in terms of their effect on the incidence of core housing need.

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Housing Research at CMHC

Under Part IX of the ***National Housing Act***, the Government of Canada provides funds to CMHC to conduct research into the social, economic and technical aspects of housing and related fields, and to undertake the publishing and distribution of the results of this research.

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